# The Virginia Annual Recycling Rate Report

# Calendar Year 2007 Summary

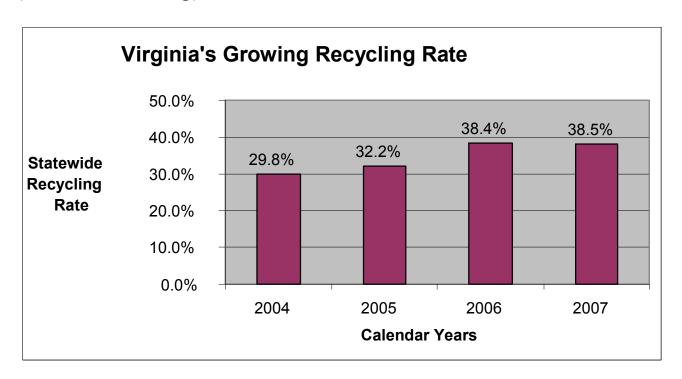


November 2008



#### VIRGINIA'S STATEWIDE RECYCLING RATE FOR CALENDAR YEAR 2007

The Virginia Department of Environmental Quality (DEQ) has completed its review of the recycling rate data reported for calendar year (CY) 2007. The data for this summary report was compiled from the reports submitted by the 74 solid waste planning units (SWPUs), and represents recycling information from 325 Virginia cities, counties and towns. In some cases, reported data was adjusted for consistency with the <u>Virginia Solid Waste Planning Regulation</u> (9 VAC 20-130 et. seq.).



#### **Statewide Recycling Rate Data - Summary**

2007 – 3,637,933 tons of material recycled or reused, and 9,526,959 tons of solid waste generated (calculation includes +.27% for source reduction initiatives)

2006 – 3,700,487 tons of material recycled or reused, and 9,706,554 tons of solid waste generated (calculation includes + .3 % for source reduction initiatives)

2005 – 2,757,442 tons of material recycled or reused, and 8,554,784 tons of solid waste generated

**2004** - 2,688,200 tons of material recycled or reused, and 9,016,087 tons of solid waste generated.

#### **Areas Reporting Highest Rates**

Higher recycling rates were reported in the more densely populated areas of the state. For CY 2007, these areas reported a total of 3,112,011 recycled tons, or 85 % of all recyclables collected, and had a calculated average recycling rate of 39.9 %. These areas include:

	Recycling Rates by Year				
<u>Area</u>	<b>CY 2007</b>	<b>CY 2006</b>	<b>CY 2005</b>	CY 200 <sup>2</sup>	
Bristol Area	31.4%	<b>37.8 %</b>	39.4 %	40.6 %	
Roanoke Area	32.9%	29.6 %	33.9 %	32.3 %	
Lynchburg Area	40.7%	39.1 %	32.8 %	31.7 %	
Northern Shenandoah Valley	35.8%	28.8 %	26.0 %	29.7 %	
Fredericksburg Area	46.5%	40.4 %	30.6 %	28.8 %	
Richmond Area	53.0%	46.3 %	45.2 %	44.6 %	
Northern Virginia	35.4%	33.4 %	32.0 %	32.8 %	
Hampton Roads	43.3%	50.9 %	36.1 %	29.8 %	

#### **Trends Observed in CY 2007 Reports**

In reviewing the statewide totals from the recycling rate reports, the following trends were observed:

• Overall tonnage materials reported (PRMs, MSW Disposed, MSW generated) decreased 2% from CY 2006 levels.

As a subset of these categories, the commodity capture rates changed as indicated:

•	Paper	0.5 % decrease from CY 2006 level
•	Metals	8 % increase from CY 2006 level
•	<b>Plastics</b>	60 % increase from CY 2006 level
•	Glass	13 % increase from CY 2006 level
•	Commingled	1.3 % decrease from CY 2006 level

- Used oil 3 % increase from CY 2006 level
- Electronics 61 % decrease from CY 2006 level

The statewide recycling rate increased slightly, up .1 percentage points in CY 2007 from CY 2006 reporting.

#### **SWPUs Meeting the Required Rate**

In each of the last five reporting years, more of the reporting entities are meeting the required recycling rate:

Year (% meeting rate)	# Reports	25 % or Greater	15% to 25 %	# below mandated recycling rate
CY 2003 (35 %)	96	34	n/a	62
CY 2004 (48 %)	95	46	n/a	49
CY 2005 (61 %)	74	45	n/a	29
CY 2006 (86 %)	74	46	18	10
CY 2007 (89%)	74	49	19	8*

<sup>\* 2</sup> SWPUs are below their required 25% rate, and 6 SWPUs are below their 15% required rate.

For CY 2007 as in CY 2006, a two-tiered recycling mandate was in effect as required by the *Code of Virginia* (<a href="http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+10.1-1411">http://leg1.state.va.us/cgi-bin/legp504.exe?000+cod+10.1-1411</a>). Each SWPU was to achieve a minimum 25 % recycling rate *unless* 

- its population density was less than 100 persons per square mile, or
- its civilian unemployment rate was 50 % or more above the state wide unemployment average.

SWPUs meeting these criteria were required to achieve a minimum 15 % recycling rate.

Using this two-tiered recycling mandate system, 66 of the 74 SWPUs (or 89 %) met or exceeded their minimum mandated recycling rate. As was evidenced in previous years, all but one of the SWPUs reporting recycling rates less than 15 % are lightly populated in makeup, with limited recycling resources and access to markets.

#### Solid Waste Management Planning and Recycling Action Plans

DEQ continues to review the required Solid Waste Management Plans (SWMPs) submitted by the SWPUs for completeness, including locality or regional recycling program information. For the plans already reviewed and in which the SWPU has reported less than the required 15 % or 25 % recycling rate, DEQ will require a Recycling Action Plan (RAP) to identify specific elements of the recycling program that will be changed or improved in order for the SWPU to reach its recycling rate.

A RAP requires both a commitment by the SWPU to provide resources necessary to improve its program, as well as a timeline for achieving the program elements. The RAP must be adopted by the administrative governmental board(s) for all localities covered by the Solid Waste Management Plan, and then approved by DEQ. Regular reporting on the progress made on the RAP elements is required until such time as the SWPU meets its minimum required recycling rate.

#### **Recycling Data Clarification**

The Technical Advisory Committee (TAC) studying changes in the recycling requirements as a component of the *Regulations for Solid Waste Management Planning* (<a href="http://www.deq.virginia.gov/waste/wastereg130.html">http://www.deq.virginia.gov/waste/wastereg130.html</a>) due to the 2006 legislation requested this clarification be included in the annual report:

"Due to the complexity and difficulty in obtaining data, this report reflects the best efforts of the planning units to represent recycling in Virginia"

In addition, the TAC is on record encouraging the reporting of recycling data by all sectors in order to make these numbers as representative of the actual condition as possible:

"Entities engaged in the collection, processing and marketing of recyclable materials should provide data for incorporation into the recycling rate calculation, when requested by the planning unit".

# **Calculated Recycling Rates for CY 2007**

**Recycling Rates and Data** 

	Traces and		CY 2007 Total MSW		
REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	Generation Tons (PRMs + Credits + MSW disposed)		
Statewide Totals	38.5 %	3,637,933	9,526,959		
Accomack County SWPU	21.3	11,707	52,230		
Alexandria (City) SWPU	21.8	45,449	208,311		
Alleghany Highlands SWPU	33.2	11,197	28,222		
Amelia County SWPU	22.7	1,977	8,719		
Amherst County SWPU	26.5	9,164	34,535		
Appomattox County SWPU	39.0	5,252	12,934		
Arlington County SWPU	40.3	102,827	255,752		
Augusta –Staunton-Waynesboro SWPU	29.3	42,606	145,476		
Bath County SWPU	15.1	850	5,626		
Bedford (City) SWPU	47.2	4,435	9,401		
Bedford County SWPU	41.7	29,240	73,719		
Botetourt County SWPU	11.7	15,215	38,235		
Bristol (City) SWPU	31.4	8,881	28,239		
Brunswick County SWPU	12.8	3,110	24,296		
Buckingham County SWPU	16.1	1,493	10,562		
Campbell County SWPU	26.7	16,863	63,057		
Caroline County SWPU	23.5	3,366	14,293		

REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)	
Carroll-Grayson-Galax SWPU	20.7	7,846	37,990	
Central Virginia Waste Management Authority SWPU (Counties of Charles City, Chesterfield, Goochland, Hanover, Henrico, New Kent, Powhatan, Prince George; Cities of Richmond, Hopewell, Colonial Heights and Petersburg)	50.3	544,756	1,028,494	
Craig County SWPU	23.9	919	3,848	
Culpeper County SWPU	33.8	15,322	45,273	
Cumberland Plateau Regional Waste Management Authority SWPU (Buchanan, Dickenson and Russell Counties)	39.5	33,782	85,492	
Danville (City) SWPU	31.6	10,855	34,325	
Fairfax (City) SWPU	39.5	18,419	46,655	
Fairfax County SWPU	37.7	487,997	1,365,361	
Falls Church (City) SWPU	53	6,760	13,257	
Fauquier County SWPU	28	35,990	124,168	
Floyd County SWPU	14.5	2,121	13,454	
Franklin County SWPU	32.4	16,281	50,310	
Gloucester County SWPU	30.3	15,232	50,210	
Greater Rockingham SWPU	27.4	15,114	55,071	
Harrisonburg (City) SWPU	30.5	20,085	65,806	
Herndon (Town) SWPU	44.7	12,918	28,711	
Highland County SWPU	21.3	459	2,161	

REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed) 65,282	
King George County SWPU	15.8	47,599		
Lee County SWPU	12.2	2,887	23,752	
Loudoun County SWPU	31.5	93,985	298,559	
Louisa County SWPU	26.9	7,367	27,349	
Lunenburg County SWPU	11.5	1,526	13,221	
Lynchburg (City) SWPU	41.1	112,613	242,022	
Madison County SWPU	27.8	2,788	10,046	
Manassas (City) SWPU	37.7	27,500	72,991	
Manassas Park (City) SWPU	7.8	500	6,439	
Martinsville (City)/Henry County SWPU	32.1	32,495	101,182	
Montgomery Regional Solid Waste Authority SWPU (Montgomery County, Blacksburg and Christiansburg)	30.1	34,794	115,639	
Mount Rogers PDC SWPU (Counties of Bland, Smyth, Washington, and Wythe)	29.7	29,314	98,767	
Newport News (City) SWPU	31	147,665	301,221	
New River Resource Authority SWPU (Counties of Pulaski and Giles; City of Radford)	23.1	19,806	85,277	
Northampton County SWPU	28.8	5,309	18,424	
Northern Neck PDC SWPU (Counties of Lancaster, Northumberland, Richmond and Westmoreland) Northern Shenandoah Valley	20	10,556	52,747	
Regional Commission SWPU (Counties of Clarke, Frederick, Shenandoah, Warren and Page; City of Winchester)	37.7	105,024	293,058	

REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)
Nottoway County SWPU	24.6	6,985	28,415
Orange County SWPU	21	5,695	26,874
Patrick County SWPU	34	4,476	13,160
Pittsylvania County SWPU	26.7	12,092	45,300
Prince Edward - Cumberland SWPU	17.4	4,716	27,152
Prince William County SWPU	38.6	191,340	498,260
Rappahannock County SWPU	17.9	1,652	9,224
Rappahannock Regional Solid Waste Management Board SWPU (County of Stafford and City of Fredericksburg)	44.8	78,742	175,753
Roanoke (City) SWPU	42.9	40,368	94,051
Roanoke County SWPU	28	17,362	66,728
Rockbridge – Lexington – Buena Vista SWPU	31.7	10,484	33,083
Salem (City) SWPU	34.1	11,346	33,243
Scott County SWPU	18.4	3,084	16,763
Southeastern Public Service Authority SWPU (Counties of Isle of Wight and Southampton; Cities of Chesapeake, Franklin, Norfolk, Portsmouth, Suffolk, and Virginia Beach)	37.5	462,793	1,218,895
Southern Crater Region SWPU (Counties of Dinwiddie, Greensville, Surry, and Sussex; City of Emporia)	19.7	13,759	69,707
Southside Regional PSA SWPU (Counties of Charlotte, Halifax and Mecklenburg)	13.4	13,207	98,220
Spotsylvania County SWPU	32	31,266	97,651

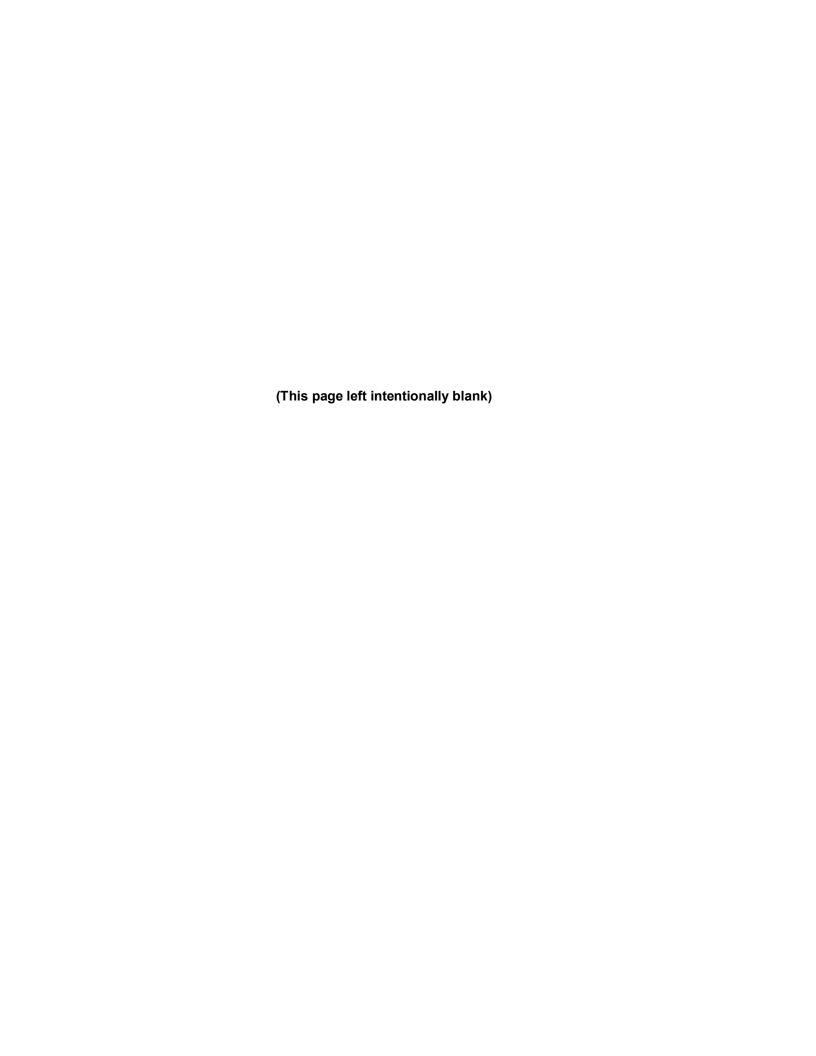
REPORTING ENTITY	CY 2007 Recycling Rate* (%)	CY 2007 Total Recycled Tons (PRMs + Credits)	CY 2007 Total MSW Generation Tons (PRMs + Credits + MSW disposed)	
Tazewell County SWPU	20.4	13,762	67,417	
Thomas Jefferson PDC SWPU (Counties of Albemarle, Fluvanna, Greene and Nelson; City of Charlottesville)	36.5	83,749	242,811	
Vienna (Town) SWPU	52.6	5,838	11,108	
Vinton (Town) SWPU	55.7	7,919	12,420	
Virginia Peninsulas Public Service Authority SWPU (Counties of Essex, James City, King & Queen, Mathews, Middlesex, and York; Cities of Hampton, Poquoson, and Williamsburg)	44.9	352,144	687,964	
Wise County SWPU	39.7	24,848	65,590	
STATEWIDE TOTALS CY 2007	38.5 %	3,637,933 Tons	9,526,959 Tons	

PRMs = Principal Recyclable Materials (paper, metal, plastic, glass, commingled materials, yard waste, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, inoperative automobiles, batteries, electronics and other)

CREDITs = Recycling Residues, Solid Waste Reused, and Non-MSW Recycled (includes construction and demolition material, ash and debris), and Source Reduction Initiatives.

MSW Disposed = Municipal solid waste delivered to sanitary landfills or incinerators for disposal.

<sup>\*</sup> All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120, with a 5 % maximum percentage allowed for credits to the base recycling rate calculated by a solid waste planning unit. A 2 % source reduction credit may have been added to the calculated recycling rate for a documented source reduction program.



### **Recycling Rate Report Summary**

#### Virginia Localities Reporting Rate Information for CY 2006

**74 Recycling Rate Reports**, representing **325 Virginia localities** and every **Solid Waste Planning Unit** were received. This represents a return rate of 100 %. Totals for all reports are presented below:

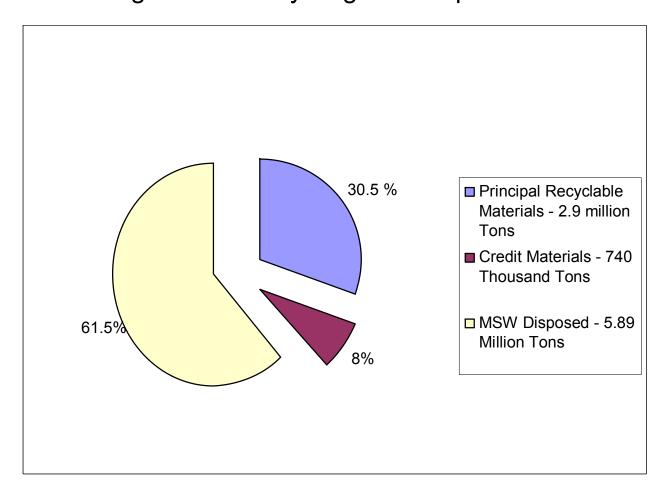
Principal Recycl (PRM					Total MSV	V Disposed
Paper Metal	917,852 762,334	CREDITS Recycling Residue	8,327		Household Waste	4,314,577
Plastic Glass	48,450 44,268	Solid Waste Reused Non-MSW Recycled	690,394 41,306	-	Commercial Waste	1,522,851
Commingled	110,915	TOTAL CREDITS (C) (Tons)	740,027		Institutional Waste	50,736
Yard Waste Waste Wood	567,595 232,092	(C) (Tolls)			Other:	863
Textiles Waste Tires	24,684 66,384	_			TOTAL	5,889,026
Used Oil	52,886	2 % Source Reduction Credit	10 entities, equaling .27% overall		MSW (M) (Tons)	, ,
Used Oil Filters	4,427					
Used Antifreeze	3,685				State Recycling Rate	
Auto Bodies	8,241			((P+C)/(P+C+M) x 100) + SR credit	38.5 %	
				(3,637,933/9,526,959) X100)+.27%	30.3 /0	
Batteries	17,163					
Electronics	3,081	_				
Other:	33,850					_
Total PRM (P) (Tons)	2,897,906					
-						

<sup>\*</sup> All data based on adjustments by DEQ for consistency with 9VAC-20-130-10 and 9VAC20-130-120.

# **RECYCLING IN VIRGINIA, CY 2007**

### **Statewide Recycling Rate of 38.5 %**

### MSW Management -Recycling and Disposal



PRMs = Principal Recyclable Materials (paper, metal, plastic, glass, commingled materials, yard waste, waste wood, textiles, waste tires, used oil, used oil filters, used antifreeze, inoperative automobiles, batteries, electronics and other)

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